



(19)

Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

EP 0 805 598 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:

05.11.1997 Bulletin 1997/45

(51) Int. Cl.⁶: H04N 7/50, H04N 7/08

(21) Application number: 96106961.4

(22) Date of filing: 03.05.1996

(84) Designated Contracting States:
DE ES FR GB IT NL(71) Applicant:
MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.
Kadoma-shi, Osaka 571 (JP)(72) Inventors:
• Nalmpally, Sai Prasad V.
Langhorne, PA 19047 (US)• Egawa, Ren
Princeton, New Jersey 08540 (US)(74) Representative: Marx, Lothar, Dr.
Patentanwälte Schwabe, Sandmair, Marx
Stuntzstrasse 16
81677 München (DE)

(54) Method and apparatus for replacing stuffing bits with supplementary data in an MPEG video data stream

(57) An apparatus and method, applicable to variable bit rate video and constant bit rate video, is disclosed for replacing "stuffing bytes" with private data. The invention takes advantage of the otherwise wasted resources dedicated to "stuffing" in a data stream in order to insert private data. This is accomplished by inserting useful private data in a Transport Stream instead of the stuffing bits. That is, effectively, a re-multiplexing operation occurs where, based on the existence of certain conditions in a Transport Packet (e.g., stuffing bytes exist), the information necessary to replace stuffing bytes with private data yet still comply with established standards is accomplished. This data generally is referred to as privatestuff data in order to distinguish it from typical private data which may otherwise be encoded into a Transport Stream. The stuffing bytes removed from the Transport Packet may come from an adaptation field in the Transport Header or directly from the Transport Payload or both.

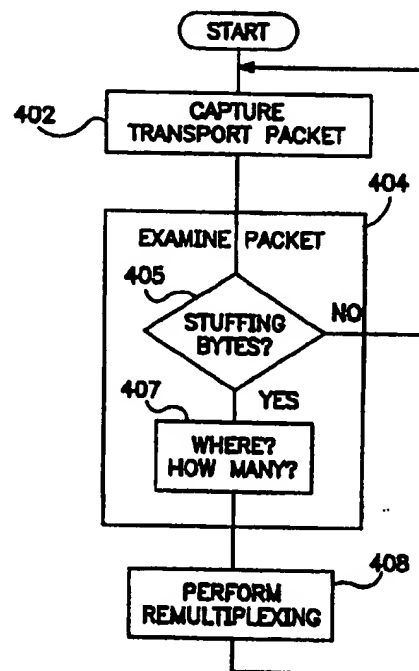


FIG. 4A

EP 0 805 598 A1

BEST AVAILABLE COPY